

**IN THE CLAIMS:**

*Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Please cancel claims 1-26 without prejudice to or disclaimer of the subject matter therein. Changes to any amended claims are indicated by strikethrough and underlining. This listing also reflects any cancellation and/or addition of claims.*

1. – 26. (Canceled)

27. (Currently amended) ~~The An~~ apparatus, comprising:

a resistive element positionable on a first surface, the resistive element formed from a plurality of portions;

a plurality of leads configured to provide a voltage to each of the plurality of portions of the resistive element;

a contact element positionable on a second surface, the contact element configured to contact the resistive element to detect a voltage at a contact position, the detected voltage being associated with a position of the second surface relative to the first surface; and

a voltage controller configured to selectively provide a voltage to each of the plurality of portions of the resistive element according to a position of the contact element relative to the resistive element.

28. (Previously presented) The apparatus of claim 27, wherein the voltage controller includes a plurality of electrical switches.

29. (Previously presented) The apparatus of claim 27, wherein the voltage controller is configured to provide substantially no power to at least one portion of the resistive element for at least a time period.

30. (Previously presented) The apparatus of claim 27, wherein the voltage controller is configured to provide power substantially only to the portion of the resistive element being contacted by the contact element.

31. (Previously presented) An apparatus, comprising:  
a resistive element positionable on a first surface;  
a pair of leads electrically connected to the resistive element, the pair of leads configured to supply a first voltage;  
a contact element positionable on a second surface, the contact element configured to contact at least a portion of the resistive element and to provide a second voltage to the resistive element; and  
an intermediate lead electrically connected to the resistive element between the pair of leads, the intermediate lead configured to detect a voltage, the detected voltage being associated with a position of the second surface relative to the first surface.

32. (Previously presented) The apparatus of claim 31, wherein the pair of leads are electrically connected to ground and the contact element provides the second voltage from a voltage supply.

33. (Previously presented) The apparatus of claim 31, further comprising a second resistive element positionable on the first surface.

34. (Currently amended) An apparatus, comprising:  
a manipulandum configured to be in communication with a computer, the manipulandum being configured to control a graphical object associated with an application, the application being associated with the computer; and  
a sensor having a resistive element on a first surface and a contact element on a second surface, the resistive element being electrically connected to a first plurality of leads configured to provide a first voltage, the resistive element being electrically connected to a second plurality of leads at locations intermediate to the first plurality of leads configured to provide a second

voltage, the contact element being configured to contact at least a portion of the resistive element to detect a voltage at a contact position, the detected voltage being associated with a manipulation of the manipulandum and control of the graphical object.

35. (Previously presented) The apparatus of claim 34, further comprising an actuator adapted to provide a haptic output in relation to an interaction between a graphical image displayed on the computer and the graphical object.

36. (Previously presented) The apparatus of claim 34, wherein the detected voltage is configured to control a slave device.